



Aviation Investigation Final Report

Location:	KAHULUI, Hawaii	Accident Number:	LAX99LA282
Date & Time:	August 24, 1999, 12:20 Local	Registration:	N6094S
Aircraft:	Aerospatiale AS350BA	Aircraft Damage:	Substantial
Defining Event:		Injuries:	5 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The pilot said he made a downwind approach to an open area at a remote ranch for noise abatement reasons. He stated that he misjudged the wind speed and found himself slower and lower than he originally planned, as he turned base to final, and encountered a power settling condition. The pilot attempted to apply left pedal to turn the helicopter back into the wind, but the helicopter continued the descent and landed hard. The rotor rpm horn came on just prior to contact with the ground.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's initial misjudgment of the wind speed and his decision to continue a downwind landing approach when his speed and altitude profile was inadequate, and his failure to maintain main rotor rpm, resulting in settling with power and a hard landing.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. WEATHER CONDITION - TAILWIND
2. (C) WEATHER EVALUATION - MISJUDGED - PILOT IN COMMAND
3. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
4. (C) GO-AROUND - NOT PERFORMED - PILOT IN COMMAND

- 5. (C) SETTling WITH POWER - ENCOUNTERED - PILOT IN COMMAND
- 6. (C) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

On August 24, 1999, at 1220 hours Hawaiian standard time, an Aerospatiale AS350BA helicopter, N6094S, landed hard following a landing approach to an open field at the Mendez Ranch, near Kahului, Hawaii. The helicopter, operated by Sunshine Helicopters under the provisions of 14 CFR Part 135, sustained substantial damage. The commercial pilot and four passengers were not injured. The helicopter was on an on-demand air taxi flight to drop off the passengers to the ranch when the accident occurred. A company VFR flight plan was filed. Visual meteorological conditions prevailed at the time of the accident. The flight originated at Kahului airport at 1205.

According to the Federal Aviation Administration (FAA) Flight Standards District Office in Honolulu, Hawaii, the accident site is approximately 5 miles from the Kahului airport on the 280-degree radial, which would place the accident site west-northwest of the airport.

The pilot told Safety Board investigators that he had made his approach downwind due to noise abatement concerns and set it up with left turns in mind. He said he entered his downwind leg from offshore at 1,000 feet msl and airspeed of 110 knots, and gradually began to descend and slow his airspeed. As he neared the base to final turn point, he noticed that he had misjudged the winds in the area and he found himself "slower and lower than he wanted to be." He said that as he turned final at 75-100 feet agl, he perceived that he was in a settling with power condition. He said he immediately applied left pedal to turn the helicopter back into the wind, but the helicopter continued to descend, so he applied more collective and heard the low rotor rpm horn come on just before he contacted the ground. The pilot stated that the helicopter "hit hard" and sprang back into the air. He said he followed the left turning tendency of the helicopter with the cyclic and lowered the collective to get the helicopter back on the ground.

The pilot later told FAA inspectors that he "misjudged the winds, and ended up down wind, low and slow."

The pilot said that after the accident the winds were out of the east about 25 knots.

Pilot Information

Certificate:	Commercial	Age:	43, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	October 5, 1998
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	11871 hours (Total, all aircraft), 8347 hours (Total, this make and model), 11000 hours (Pilot In Command, all aircraft), 247 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aerospatiale	Registration:	N6094S
Model/Series:	AS350BA AS350BA	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2722
Landing Gear Type:	Skid	Seats:	7
Date/Type of Last Inspection:	August 10, 1999 100 hour	Certified Max Gross Wt.:	4630 lbs
Time Since Last Inspection:	59 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	8665 Hrs	Engine Manufacturer:	Turbomeca
ELT:	Installed, not activated	Engine Model/Series:	ARRIEL 1B
Registered Owner:	SUNSHINE HELICOPTERS	Rated Power:	600 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:	SUNSHINE HELICOPTERS INC.	Operator Designator Code:	SSHA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	15 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	25 knots / 28 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	29°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	KAHULUI , HI (OGG)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	12:10 Local	Type of Airspace:	Class E

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 None	Latitude, Longitude:	20.87095,-156.449722(est)

Administrative Information

Investigator In Charge (IIC):	Childress, Deborah
Additional Participating Persons:	JOEL KOFF; HONOLULU , HI
Original Publish Date:	May 9, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=47145

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).